

ABSTRACT

Disclosed is a method of manufacturing a semiconductor device which has reliable buried interconnects (wirings) and a reliable MIM capacitor. An interconnect and a capacitor bottom electrode are formed inside a hole made in six insulation films. Then a barrier insulation film is formed on the uppermost film (of the above six insulation films) including the interconnect and the top face of the bottom electrode. After two insulation films are formed above the barrier insulation film, a hole is made in the two insulation films and a capacitor top electrode is buried in that hole. The barrier insulation film also functions as a capacity insulation film for the capacitor. Then, after three other insulation films are formed on the upper film (of the above two insulation films) including the top face of the top electrode, a hole is made in the barrier insulation film, the two insulation films, and the three other insulation films, and another interconnect is buried in that hole.